The claims:

1. A method of estimating the orientation of a segment of digital ink, the method including the steps of:

(1) measuring the azimuth of the pen at a sampling rate during writer generation of the segment of digital ink; and

(2) estimating the orientation of the segment of digital ink using the measured azimuth of the pen at sampled points.

2. The method as claimed in claim 1, wherein the estimated orientation of the segment of digital ink is subsequently used in a digital ink line orientation normalization technique.

3. The method as claimed in claim 1, wherein a single, fixed orientation estimation is utilised for a line of digital ink.

4. The method as claimed in claim 1, wherein an orientation estimation that varies across a line of digital ink is utilised.

5. The method as claimed in claim 1, wherein in step (2), the orientation of the pen at sampled points is estimated by subtracting the mean azimuth of a digital ink training sample from the measured azimuth of the sampled points, and normalizing the estimated orientation to be within the range of 0° to 360°.

6. The method as claimed in claim 1, wherein the segment of digital ink is more than one character of digital ink.

7. The method as claimed in claim 1, wherein the segment of digital ink is a line segment.

8. The method as claimed in claim 6, wherein line segmentation is performed by measuring a change in azimuth value.

9. The method as claimed in claim 1, wherein the orientation estimation uses a writer independent handwriting model.

10. The method as claimed in claim 1, wherein the orientation estimation uses a writer dependent handwriting model trained using sample digital ink input by the writer.

11. The method as claimed in claim 10, wherein the writer dependent handwriting model is trained using sample digital ink input by the writer using a consistent baseline.

12. The method as claimed in claim 10, wherein the writer dependent handwriting model is trained using arbitrary sample digital ink input by the writer.

13. The method as claimed in claim 2, wherein the digital ink line orientation normalization technique is selected from the set of:

smoothed running estimate of the orientation correction;
curve fitting estimate orientation correction.

14. A pen-based computing system for estimating the orientation of a segment of digital ink, the system including a pen-based computing pen to input digital ink, and a processor adapted to estimate the orientation of a segment of digital ink by measuring the azimuth of the pen at a sampling rate during writer generation of the segment of digital ink, and estimating the orientation of the segment of digital ink using the measured azimuth of the pen at sampled points.

15. A pen-based computing system for estimating the orientation of a segment of digital ink, the system including:

(1) a pen-based computing pen to input digital ink;
(4) a storage unit to store a handwriting model;
(5) a processor, the processor being adapted to:
(a) retrieve the handwriting model;

(b) receive a measurement of the azimuth of the pen at a sampling rate during writer generation of the segment of digital ink; and

(c) estimate the orientation of the segment of digital ink by modifying the measured azimuth of the pen at sampled points using the handwriting model.

16. The system as claimed in claim 14 or 15, the processor being adapted to perform the method of any one of the claims 1-13.